

CLAIMS

What is claimed is:

1. A pressure-tight contact device for enabling an electrical connection to an electrical device housed in a pressure-tight housing, said contact device comprising an insulator extending through said housing, a seal for sealing said insulator relative to said housing, and a connector shell of insulating material positioned on said insulator and affixed to at least one of said insulator and said housing, said connector shell including a terminal socket for receiving a connecting cable, said terminal socket including at least one contact pin.

2. The pressure-tight contact device of claim 1, wherein said connector shell is one of a set of interchangeable connector shells each having a different configuration suitable for connection of a corresponding connector member of said connecting cable.

3. The pressure-tight contact device of claim 1, wherein said electrical device housed in said housing is a motor for driving a compressor.

4. The pressure-tight contact device of claim 1, wherein said connector shell includes a shroud, said seal includes a first O-ring seal, and said at least one contact pin extends through said insulator, and further comprising a second seal including a second O-ring seal for sealing said at least one contact pin relative to said insulator, at least one contact tab mounted in said connector shell, said at least one contact pin elastically and electrically connected to said at least one contact tab, a third seal including a third O-ring

for sealing said connector shell relative to said insulator, and at least one fastener for affixing said connector shell to at least one of said insulator and said housing, said at least one contact tab and said shroud forming said terminal socket for mating with a connector member of said connecting cable.

5. The pressure-tight contact device of claim 4, wherein said at least one contact pin includes at least one tip arranged and constructed to engage at least one opening defined in said at least one contact tab.

6. The pressure-tight contact device of claim 5, wherein said at least one contact tab includes at least one contact face defined by said at least one opening, said at least one contact face bearing against said at least one contact pin to provide an electrical connection between said at least one contact pin and said at least one contact tab.

7. The pressure-tight contact device of claim 4, wherein said at least one contact pin and said at least one contact tab are positioned proximate one another.

8. The pressure-tight contact device of claim 4, further comprising nose members for positioning said at least one contact tab in said connector shell.

9. The pressure-tight contact device of claim 4, wherein said at least one contact tab is held in position in said connector shell by means of a crimp.

10. The pressure-tight contact device of claim 4, wherein said at least one fastener is a bolt.

11. The pressure-tight contact device of claim 4, wherein said at least one fastener is a play-free snap fastener.

12. The pressure-tight contact device of claim 1, wherein said at least one contact pin is electrically connected to said electrical device and to a source of electrical current for supplying said electrical current to said electrical device.

13. The pressure-tight contact device of claim 12, wherein said at least one contact pin is electrically connected to at least one additional electrical device disposed in said housing.

14. The pressure-tight contact device of claim 1, further comprising a plurality of projections extending from said at least one contact member arranged and constructed to retain said at least one contact member in said insulator when said at least one contact member is pressed into said insulator.

15. The pressure-tight contact device of claim 1, wherein said connector shell includes a bore defined therein for leak testing.

16. The pressure-tight contact device of claim 1, wherein said connector shell includes a channel defined therein for leak testing, said channel being disposed above said at least one contact tab.